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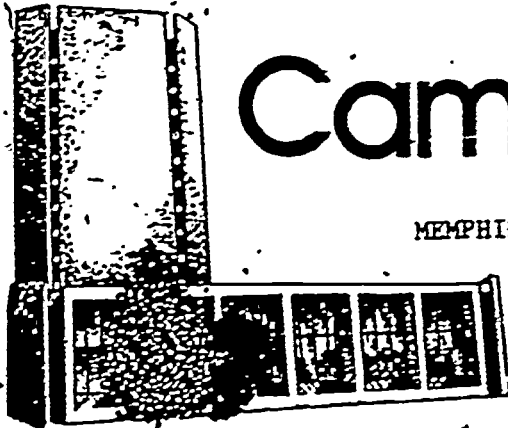
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ABSTRACT

This bibliography lists 30 basic references to the metric system. In addition to the author, title, and publication data, each listing includes a brief annotation and the Library of Congress catalog number. (SD)

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THE METRIC SYSTEM:

A BIBLIOGRAPHY OF BASIC REFERENCES

Compiled by

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Engineering Librarian

The Metric System:
A Bibliography of Basic References

In 1821 John Quincy Adams presented to Congress a report dealing with the ~~modernization of the United States measurement system. After four years of~~ investigation, Adams concluded that while the metric system approached "the ideal perfection of uniformity applied to weights and measures" the time for its introduction was not right. He rejected the system.

One-hundred and fifty-four years later the time has come. Today the United States is the only major nation in the world which has not converted to the metric system. In order to be able to participate profitably in the increasingly competitive field of international business and trade, the United States must convert. Each year the pressures become stronger. The question no longer seems to be will the United States convert to the metric system or even when but how.

There have been through the years several forms of the metric system. In 1960 the General Conference on Weights and Measures, the international authority on matters concerning units of measurement, adopted a universal system of weights and measures. This system, Le Système International d'Unités (SI), is today the most widely accepted form of the metric system.

Individual companies have already begun the conversion process. Their need to compete in the international market has made this inevitable. The orientation of the general public, however, is another problem. The purpose of the following is to provide a basic, working bibliography for use by libraries in building collections to aid in this orientation. It is not comprehensive, but is designed to include titles of a basic instructional nature, as well as those which are technical.

SI METRICATION

QC
82
E37
REF

Clason, W.E. (comp.). Elsevier's Lexicon of International and National Units. New York: Elsevier Pub. Co., 1964.

A guide to meaning and value of internationally and nationally used units. International units, arranged alphabetically by unit, have definitions in English followed by same word in ten different languages.

QC

Page, Chester H., and Paul Vigoureux. The International System of Units (SI). Washington: National Bureau of Standards, 1972.

91
B86x
ENGP

Translation of the French "Le Système International d'Unités." Reviews history of metrics, base and derived units of SI system, and units outside this system.

QC

Burton, D.C.P., and P. Leighton. Metriation and Technical Education. London: Pitman Pub., 1970.

91
B87x
ENGP

Begins with historical background and description of the SI system. Followed by review of general problems associated with its introduction into technical education. Discussion of conversion of the workshop and laboratory to metric standards.

QC

Chiswell, Barry, and E.C.M. Grigg. SI Units. -Sydney, New York: J. Wiley and Sons Australasia, 1971.

91
C46
ENGP

Basic information about SI system. History, definitions of units, rules for their use. Tables of physical quantities, symbols and units. Tables of conversion largest part of book.

QC

Diamant, Rudolph Maximilian Eugen. Understanding SI Metriation. London: Angus and Robertson, 1970.

91
D5
ENGR

History of weights and measures. Reasons for change to SI system. Explanation of SI system. Metriation as used in various disciplines. One chapter on simple and compound conversion factors.

QC

Donovan, Frank Robert. Prepare Now for a Metric Future. New York: Weybright and Talley, 1970.

91
D64
1970
CIRC

Narrative history of weights and measures from the caveman to present day. Systems compared. Metric system reviewed. Conversion efforts of various countries related. Where U.S. stands today.

QC

Gilbert, Thomas F., and Marilyn B. Gilbert. Thinking Metric. New York: Wiley, 1973.

91
G55
CIRC

Self-instructional guide to the metric system. Includes exercises, problems, and self-tests.

QC Great Britain. Standing Committee on Metrication. "Change to the
91 Metric System in the United Kingdom: Report. London: H.M.
G73 Stationery Office, 1968.

CIRC

Report of Standing Joint Committee on Metrication on setting
up basic guidelines for change to the metric system in the
United Kingdom.

QC Green, Marvin H. International and Metric Units of Measurement.
91 2d ed. New York: Chemical Pub. Co., 1973.

G75

1973

ENGR

Up-to-date compilation of units of measurement and their
conversion factors. Appendix: comparison of international
and U.S. customary units.

QC Le Marais, A.L. The Complete Metric System with the International
91 System of Units (SI). Somers, New York: Abbey Books, 1973.

A4

1973

REF

Brief introduction to SI system. Physical constants and
conversion factors. U.S. customary and international metric
with two-way conversion tables. Guide to use of SI system
with special tables.

QC Mechtly, E.A. The International System of Units; Physical
91 Constants and Conversion Factors. Washington: National
M45 Aeronautics and Space Administration, 1969.

1969

ENGR

Brief history of SI system. Definitions of SI units and
tables of numerical factors for converting as approved for
use by NASA.

QC Metric Weights and Measures (Filmstrip and tape cassette. 15 min.)
91 Library Filmstrip Center, 1969.

M46x

LMC

Presents basic metric units of length, mass, volume. Prefixes
and their meanings. Simple problems of conversion and
conversion factors.

QC National Conference on the Change to the International System
91 (SI) Units for Energy, London, 1968. Proceedings. London:
M37x Ministry of Technology, 1969.

1968

ENGR

Reproduction of papers presented at conference along with
summaries of discussion from the floor.

QC Kozma, Paul. Preparing a metrication program in a company;
91 a new task for the industrial engineer (Audiorecord).
P7x Development Digest, 1974.

LMC

Part of cassette library for industrial engineers.

QC
91
S55
CIRC

Smart, James R. Metric Math: the Modernized Metric System (SI).
Monterey, Calif.: Brooks/Cole Pub. Co., 1974.

Discusses historical development of metric system. Definitions and concepts. How to convert from one unit of measurement to another. Exercise sets and laboratory activities allow book to be used as classroom text.

QC
91
U58x
ENGR

U.S. National Bureau of Standards. U.S. Metric Study: Interim Report. Washington, D.C.; National Bureau of Standards, 1971.

Results of substudies of U.S. Metric Study. Topics include history of metric controversy, testimony of nationally representative groups, effects of conversion on U.S.

QC
92
J54
K43x
ENGR

Keller, John J. Metric Manual; Development, Considerations, Tables, Comparisons, Definitions for Metrication in U.S.A. Neenah, Wis.: J.J. Keller and Associates, Inc., 1974.

Designed "to give interested persons . . . the background necessary to understand the full implications of conversion." Includes: history of measurement; development of metrology; metric training; business and professional concerns; organizations; comparisons; tables.

QC
92
U54
K44
ENGR

Metric system guide. Neenah, Wis.: J.J. Keller and Associates, Inc., 1975.

Five volume loose-leaf series "concerns the metric system and its adaptability to the U.S." Contents: 1. Metrication in the U.S.; 2. Legislation and regulatory controls; 3. Metric units edition; 4. Metric reference edition; 5. Definitions and terminology.

QC
92
U54
G76
CIRC
OVERSIZE

Groner, Alex, and George A.W. Boehm. Going Metric. New York: Amacom, 1973.

Report of American Management Association survey "conducted to determine U.S. management's current attitude toward SI metrication and its state of preparedness for conversion.

QC
92
U54
T87
CIRC

Turner, Rufus P. Metrics for the Millions. Indianapolis: H.W. Sams, 1974.

Through comparison with U.S. system, strives to explain metric system in simplified terms. Discusses various classes of metric units and how to convert. Practice exercises at the end of each chapter.

QC Ploutz, Paul F. The Metric System; a Programmed Approach.
93 Columbus, Ohio: Merrill, 1972.
P57
CIRC Programmed manual containing the basic essentials of metric
OVERSIZE measurement required for mathematics and for science
laboratory programs..

QC Lewis, Gerwyn Elidor David. Metric and Other Conversion Tables.
94 London: Longman, 1973.
148
ENGR Introduction to the units, symbols, and definitions of SI
system. Conversion tables occupy most of the book..

QC Ronningen, Helmer A. Metrics: Measurement for Tomorrow. New
94 York: Collier Books, 1972.
R65
1972
REF The fingertip guide to quick, easy, accurate conversion
for consumers, travelers, students, businessmen, engineers.
Simplified explanation of metrics with use of tables, graphs,
and charts.

QC Sellers, Robert C. (ed.). Basic Training Guide to the New
94 Metrics and SI Units. Washington, D.C.: National Tool, Die
S44 and Precision Machining Association, 1972.
1972b
ENGR Basic introduction to metric-SI system. Part one; quick
introduction for non-technical personnel; includes brief
history of metric system, definitions, symbols, etc. Part
two: SI units in technical work.

QC Semioli, William J., and Paul B. Schubert. Conversion Tables
94 for SI Metrication. New York: Industrial Press, 1974.
S45
ENGR Designed to assist engineers and those in related technical
and disciplines. Brief introduction to SI system. Extensive
REF list of useful conversion tables for more common SI and
English units (these tables occupy most of the book).

QC Gat, Uri (ed.). Proceedings: the International System of Units
95 (SI) and What It Involves. Lexington: University of
P76x Kentucky, 1972.
1972a
ENGR Papers presented at conference on such topics as cost of
conversion, conversion of machine tools, tooling and gaging,
legal and legislative implications, educating for SI
conversion, consumers conversions, etc.

QC Ramaswamy, G.S., and V.V.J. Rao. SI Units; a Source Book. New
95 Delhi: Tata McGraw-Hill Pub. Co., 1971.
R35
ENGR After brief introduction to units and standards in general
and SI system in particular, discusses SI units in physics,
-- in primary and secondary education, and in engineering and
science.

TH Crocker, Alan E. Module and Metric: the Theory and Practice of
860 Dimensional Co-ordination in Metric. New York: Praeger, 1971.

G76
ENGR Explanation of metrication and dimensional co-ordination.

ANSI American National Standards Institute. Metric Practice Guide
Z210.1 (Z210.1). New York: ANSI, 1973.

ENGR
Guidelines offered by ASTM for use of SI in ASTM standards and in the standards of commerce and industry. Sections on SI units, symbols, rules for style and usage, rules for conversion and rounding.

ANSI American National Standards Institute. IEEE Recommended Practice:
Z210.2 Rules for the Use of Units of the International System of
ENGR Units. (Z210.2) New York: ANSI, 1971.

Guidelines issued by Institute of Electrical and Electronics Engineers Standards Committee for use of SI units.